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A CASE OF HYDROPHOBIA.

BY C. L. EDWARDS, M. D., HYDE PARK.

MISS A. B. was bitten last August, between the fore and middle fingers of her right hand, by a small black-and-tan terrier dog. The injury was so slight that she did not send for medical aid, but sucked the wound, after which she applied Friar's balsam and pork rind. It healed rapidly and she thought nothing more about it; the dog was killed to satisfy popular superstition, but was not supposed to be rabid. On February 14, 1877, while washing the tea things in warm water, she suddenly felt a "sharp, stinging pain" at the seat of injury, which during the evening and night extended up the arm to the shoulder. The next morning there was great difficulty in swallowing and a feeling of constriction in the neck and upper part of the chest. She being then at Norwood sent for Dr. Fogg, who immediately recognized the disease and advised removal to her home in Hyde Park, where she arrived at four P. M. the same day. I saw her at five P. M. She was then on a lounge, her tongue clean, skin cool, pulse 95 and hard. There was nothing unusual about her appearance. I noticed that when answering questions she spoke during the act of inspiration. Otherwise she was calm and tranquil, but on offering her some water from a teaspoon the true symptoms presented themselves; at sight of it severe contraction of the muscles of the throat occurred, accompanied by a sort of spasmodic sobbing, which as the spoon approached her lips was fearfully increased. She tried bravely to take the water, but, with the exception of a few drops after great exertion, it was impossible. At my suggestion she went to bed; I gave her one sixth of a grain of sulphate of morphine subcutaneously, ordered hot bricks to her feet, and injections of beef tea and brandy into the rectum *pro re nata*; perfect quiet was enjoined.

At three o'clock the next morning I was called, the messenger telling me that the poor girl was suffering terribly. I found her on her back, the hands clutching at the throat and chest, with severe spasms of muscular contraction; the pulse was 120; the skin very hot and moist; she had passed urine and retained two injections of beef tea

and brandy, which had been given as ordered. A quarter of a grain of sulphate of morphine injected into the arm gave her comparative ease, but no sleep. I went home at six A. M. Accompanied by Dr. W. S. Everett, of Hyde Park, I saw her at ten A. M.; she was tolerably quiet when all the surroundings were still, but the opening of a door or the rustling of a dress would immediately bring on the spasms, and the attempt at swallowing was so painful that we thought it best to abandon it altogether. Her only complaint was that her head was dizzy and she felt "so, so tired;" pulse 120.

I saw her at one P. M., in consultation with Dr. C. C. Holmes, of Milton. The symptoms were rather more aggravated. She was ordered tincture of aconite, chloroform and alcohol to spine, and morphine sulphate one sixth grain, with chloral hydrate grs. v. subcutaneously as occasion required. During the afternoon she gradually grew worse, her urine passed involuntarily, and the throat got very dry and parched; she would make violent unsuccessful efforts to vomit, coughing frequently and spitting out a thick bloody mucus, which she would take in her fingers and pull from her mouth, not being able to permit even the approach of a handkerchief to her face. "Water," was now her cry, "give me water," and so eager was she to relieve the dryness of her throat, that some water would actually be swallowed before she seemed to be aware of what she had done, and then the spasmodic choking would come on more severely.

During the night following, she had short periods of comparative ease, but the end seemed surely approaching. When the spasms now occurred they became more general, the body and lower extremities being terribly convulsed, so much so that it required half a grain of morphine once an hour for three successive hours to afford her any relief, and that was but little. The pulse became intermittent, ranging from 150 to 160. For two hours previous to death, which took place at 9.30 A. M., she was almost free from spasms, and she talked glibly of things which happened a year or two before, going through minutely the history of her dog bite. A little after nine A. M. she was seized with a severe spasm, and died asphyxiated in less than half an hour.

There were no attempts made at any time during her sickness to bite or to bark like a dog, but there was a very harsh dry cough which I can easily imagine that the ignorant might have conjured into a bark. It was just sixty-two hours from the time she first felt the pain in her hand till death ensued.

A CASE OF HYDROPHOBIA.

BY HENRY H. SMITH, M. D., DUBLIN, N. H.

CHARLES W. WHITAKER, aged ten years, of *nervo-sanguine* temperament, not as large as the average of boys at that age, was bitten by a dog of the shepherd breed on the afternoon of the 25th of November, 1876. The dog was not thought to be mad at that time, but subsequently proved to be so. I was not called to see the boy until the next day, when it was found that he had been bitten in several places, the largest wound being on the head behind the right ear and about two inches in length. So much time having elapsed, I thought it of no use to cauterize the wounds, which healed kindly under a dressing of simple cerate.

On Tuesday, January 30, 1877, the boy began to complain of pain in his head. He said it started behind his right ear, went down the neck and then down the back; this pain became very severe, and towards night he spoke of being cold, and his parents said "he had the shakes;" he was also sick at his stomach, vomited several times in the night, was very restless, and did not sleep; he also vomited several times the next forenoon. About two o'clock P. M. he called for water, which was given him, and he drank nearly a tumblerful, but very soon threw it up; about four o'clock P. M. he again asked for water; it was brought him, and on putting the glass to his lips he was seized with a spasm, and as soon as he could speak he said, "I can't drink it, I can't drink it; it takes my breath away." This, of course alarmed the parents, and I was called that evening. I found the patient sitting quietly in his aunt's lap, but on being spoken to he looked up with a very peculiar, wild, and distressed countenance; the face was flushed, the skin hot and dry, the pulse 110; he said he was not sick at his stomach then, and answered all questions correctly. I noticed while sitting by him, that every three to five minutes he would take a long, full inspiration, and at short intervals between the inspirations he would make a noise like a sob, something like a child that has been crying. I asked him if he did not want some drink; he said yes, but that he did not want water for he could not drink it. I asked, "Why not?" He said, "It takes my breath away." I then asked him if he could drink some sage tea; he said yes; some tea was poured into a saucer and I handed it to him; he grasped it with both hands and carried it to his mouth; but the instant the saucer touched his lips he took a short inspiration, just as a child would that had some cold water dashed upon its face, and the muscles of the throat and jaws seemed to be strongly contracted, which was found to be the case on trying the same experiment again. As soon as he could speak, he exclaimed, "Oh! I can't drink it," and when asked why not, his reply was the same as

before, and it required considerable coaxing to induce him to attempt to drink.

I gave him morphine in a little sauce, which he swallowed, but with a convulsive effort; in about half an hour he went to sleep and slept about the same length of time; during his sleep he ground his teeth, had starts and general twitchings of the muscles. Morphia was administered at frequent intervals, but he slept very little the rest of the night, the convulsive movements gradually increasing.

Thursday morning, February 1st, he began to be delirious, the delirium occurring at intervals and with the spasm or convulsion. After a convulsion he asked, "Why do they put me up in the sky?" Once he asked, "What does the doctor give me those cannon-balls for? I can't swallow them." He said, "Father, I am strong. I can lift as much as you and Mr. B. and Mr. C.," naming some of the neighbors. I ordered his attendants to use no more force than was necessary to prevent injury to himself and others; consequently, when not in a convulsion he was constantly on the move, getting up and sitting down, going from one room to another. As the disease progressed he grew weak, and when walking would stagger like a drunken man. The sobbing continued, and when in a convulsion he would draw in his breath so forcibly that a noise was made which a strong imagination might construe into a bark like that of a dog. I compared it to the sound which I have frequently heard in a croupy child. He attempted to bite his father once. There was an excessive flow of thickish, tough saliva which he was constantly spitting out. If asked why he spit so much his answer was, "I can't swallow it." There was no particular change in the symptoms Thursday night, excepting towards morning, when he grew weak rapidly, and died on Friday morning, February 2d. From the first to the last of the disease the patient refused nourishment in any form.

A CASE OF TETANUS.

BY J. F. DYER, M. D., GLOUCESTER.

Late Surgeon-in-Chief of Division in the Army of the Potomac.

READING in the JOURNAL the report of a case of tetanus under the care of Dr. Charles B. Porter in the Massachusetts General Hospital, I was reminded of one which occurred in my practice in 1874, some notes of which I have preserved.

.On the 1st of October, 1874, I was called to see F. B., aged eleven, who ten days previously had received a wound of the right knee by falling on a stone. The wound was then nearly healed, a small scab adhering. There had been no suppuration. On inquiry, I found that the patient had gone barefoot on the wet ground, paying no attention

to the injury. Three or four days after, he complained of soreness of the throat and "stiffness of the jaws." This stiffness of the jaws increased, but not enough to excite serious apprehension until the 1st of October, ten days after the injury. His condition was then as follows: pulse 70; skin cool; muscles of the body, neck, and face rigid; head thrown back; opisthotonos complete. The teeth allowed the edge of a tea-spoon to be inserted, and deglutition was not impaired. I gave an opiate, and as soon as chloral hydrate could be obtained ten grains were given every half hour until the muscular rigidity was relieved. With little variation this treatment was pursued for nearly three weeks, the medicine being administered only when necessary, and always with the effect of relieving the muscular rigidity and allowing the patient to open his mouth sufficiently to take nourishment. He took liquid food principally, sometimes two quarts of milk in twenty-four hours, but also some solid food.

On the 11th I found him suffering extremely. His medicine was exhausted, and being some distance from the druggist's a supply could not be obtained immediately. For two hours he had been completely rigid, and was in danger of suffocation. I found him with an attendant holding each hand, the face purple, and asphyxia fast becoming complete. I succeeded in administering about thirty grains of chloral through a vacant space where some teeth were wanting, and in precisely seven minutes the spasm was relaxed, and he spoke freely, charging us not to allow him to "get out of medicine again," and in ten minutes he was eating grapes. Thus every indication seemed to be answered, and time was gained. The appetite was good, the bowels were in good condition, and the urine normal. The pulse remained as before, and no untoward symptom appeared until, on the 18th, I found him suffering from shortness of breath and pain, and on examination found the right lung congested and the usual symptoms of pneumonia present. His pulse became feeble and rapid, and death took place on the 20th.

As before stated, chloral was the agent most depended on, though stimulants and baths were occasionally used. Since this treatment seemed to promise better results than any other, and was further sustained by the publication of cases successfully treated in the same manner in France at about that time, I felt encouraged to believe that my patient would recover. The pneumonia was not, I think, a consequence of the disease; at that time it was quite prevalent throughout the country and neighborhood. Though unsuccessful, I think this treatment promises better results than any other. In my experience in the field hospitals during the rebellion, the few cases of recovery were probably due to the free use of chloroform and stimulants. This was before the discovery of chloral, with which I think we should have met with more success. But it is only by the report of unsuccessful as well as successful cases that we can arrive at definite conclusions.

THE JURISPRUDENCE OF INSANITY IN NEW YORK.

BY CHARLES F. FOLSOM, M. D.

A CASE of some interest has recently been decided in New York,¹ which has so important a bearing on many questions of more than local interest, especially as it is considered to establish a precedent, that it seems worth while to consider it at some length.

Mrs. N. was admitted as a patient into one of the leading insane asylums in New York on January 22, 1874, suffering from acute puerperal mania, and with the delusion that to partake of food would jeopardize the lives of her children; a condition which necessitated artificial feeding. About a year after her removal from the asylum she complained to her husband of injuries inflicted upon her "while being fed by her attendants forcibly and against her will." An examination of her throat revealed grave disfigurement, which was mainly due to adhesions between the right lateral margin of the velum palati and the uvula, which were plainly traceable to previous extensive laceration.

Passing over a display in the trial of a judicial fairness, which could not exist where any one individual (in this case the commissioner of lunacy) was the sole arbiter, it is sufficient to say that the defendants acknowledge the facts complained of by Mrs. N., saying that it was necessary to feed her by force; that the person charged with that office was an attendant by the name of Jane —; that said person was skillful, trustworthy, and experienced, and that the injury to the throat was accidental and consequent upon the resistance offered by the patient.

Instead of finding that the officers of the asylum had been derelict in their duties, the commissioner merely announced his conclusions in the shape of suggestions, without giving them the usual force of commands. He exonerated the defendants from all blame, and charged the whole fault upon the attendant, who perhaps did her best in carrying out her instructions, for not reporting the facts of the injury [if she were cognizant of them] to the physicians. The commissioner finds some fault with the class of persons who are attendants in asylums, think that more intelligence and education are needed in their positions, and gravely recommends that there should be a distinct, authoritative supervision of the attendants by an officer appointed for that purpose; but the editor of the *Medical Record* says that, under the present system of asylum management, there does not seem to be much hope for a change in this respect.

The operation of artificially feeding an excited, deluded, struggling patient is one of such difficulty that it is always attended with some risk,

¹ The American Journal of Insanity, January, 1877; The Medical Record, New York, February 3, 1877.

and occasionally with fatal result, under the most dexterous hands and by the use of the best method possible, the stomach tube (nutrient enemata not being always practicable without the voluntary coöperation of the patient). It should never be undertaken except in case of absolute necessity, then only by thoroughly competent persons, and, of course, never by attendants. Prying the mouth open and forcing food to the throat by means of a strong spoon, as was done in this case, neither physician nor attendant is justified in attempting. If proper method and proper care are used by competent persons, there can be no blame for an accident which may happen; but that this delicate work should be intrusted to attendants, whom the commissioner finds so incompetent for their positions as to require a special officer to supervise them, and that, too, in an asylum where a specially appointed commission only a few years ago found short-comings, which they excused on the ground of the absence of the superintendent in Europe and the consequent overwork of the remaining officers, is another of the illustrations which we are constantly having of the failure of corporate bodies to learn by experience. That our asylum superintendents are men of high character, and that our state and corporate asylums are, in many respects, well arranged, is not questioned; but, if they are to be kept up to a high standard, and if the community are to have full confidence in them, everything in their management should be as open as possible. If the attendants need a special supervising board, what is the *raison d'être* of the medical officers? If such attendants, acknowledged to be unsatisfactory, perform difficult and dangerous operations which would not be allowed in our best New England asylums, and, I think, not in any of them, what else may they not do, and what confidence can physicians or the public have in such institutions? Can we expect to have good attendants if they are to be blamed before the public for the faults of their superiors or for a bad system?

That there is some difficulty in getting thoroughly competent assistants and attendants in our asylums no one will dispute; that more is not done in that direction is very largely the direct fault of the superintendents and directors or responsible agents in asylums for not demanding or supplying more; and the medical schools must come in for their share of the blame in sending out their graduates ignorant of a class of diseases affecting one of every several hundred persons, thereby adding to the general disregard of the matter. But this case in New York shows, for that State, at least, that there is a more serious fault, which is probably quite general over the whole country, namely, that physicians and the public know too little of asylums, know too little of the general treatment of their patients and friends who are committed to them; and, finally, it shows the thoroughly unsatisfactory character of the present system of inspection of asylums and of supervision of the insane.

The following sentence, although soberly written, seems to convey a bit of satire: "In the light of an assurance to the public that cases of the sort will always be investigated, that any existing errors of management, either as those of omission or of commission will be promptly corrected, it is well that the examination was made necessary."

Some American superintendents have complained of late of the sensitiveness of the public in regard to asylums for the insane and of the want of confidence in them.

It has not been an agreeable duty to call attention to these matters; but it has seemed to me important to place on record the fact that the practice in New York, stamped as it is with the approval (tacit, if not otherwise) of the commissioner of lunacy, is not the practice in American asylums generally, and that the criticisms which have recently been made on some of them do not apply to all.

RECENT PROGRESS IN THERAPEUTICS.

BY ROBERT AMORY, M. D.

Ziessen's Treatment of Gastritis and Gastric Ulcer. — Dr. Andrew reports¹ five cases in which he pursued this treatment at St. Bartholomew's Hospital. The theory of the treatment consists in neutralizing the acid fermentation of the contents of the stomach, and also in causing their daily evacuation through the pyloric orifice. Both of these indications are met by the administration of warm Carlsbad water every morning while the patient is fasting. When Carlsbad salts are employed, one and a half drachms (23½ grammes) in three quarters of a pint (355½ cub. cent.) of warm water are given, the whole being administered in three doses, commencing one hour before breakfast. The diet forms an important part of the treatment; this consists of milk, beef tea, and eggs, and when the stomachal digestion appears to be improved the liquid diet is replaced with more solid food, as fish, etc. In Dr. Andrew's cases, brandy was also given when indicated. As soon as the improvement became established he prescribed a ferruginous tonic preparation. The recovery in one case in which a gastric ulcer had existed for eight years, though slow, was permanent. The other cases improved rapidly and thoroughly recovered. Obstinate constipation, which was a constant symptom, required no special treatment, but disappeared as the patients improved. The advocates for this treatment claim that the ingestion of warm Carlsbad water incites a peristaltic contraction of the stomach, produces a consequent evacuation of its contents, and thus prevents the acid fermentation of food and vom-

¹ Medical Times and Gazette, September 2, 1876.

iting of sarcinæ ventriculi, this latter being a constant phenomenon of gastritis and gastric ulcer.

The Use of Sulphur and Ozonic Ether in Scarlatina.—Mr. Pigeon¹ presents a method of using sulphur in the treatment of scarlet fever, which he claims to have been very successful. He prescribes this method in the following words:—

“Thoroughly anoint the patient twice daily with sulphur ointment. Give five to ten grains (0.323 to 0.647 gramme) in a little jam three times a day. Sufficient sulphur must be burnt (on a hot shovel) to fill the room with sulphurous fumes, which, of course, are thoroughly inhaled by the patients.”

Under this mode of treatment each of his cases immediately improved, and it is said that none were over eight days in making a complete recovery. One of his cases treated in this way was in a large school.

Dr. Day, president of the Medical Society of Victoria, was the first (in April, 1873) to use ozonic ether (probably ethereal solution of peroxide of nitrogen) in the treatment of scarlet fever, and has pursued this same treatment ever since. In a letter written by him, dated Geelong, May 12, 1876,² he states that this method is gaining favor among a large majority of the medical profession in Australia. Since his report, published in 1875, he has seen a large number of cases and has lost, he thinks, about four. His treatment consists in an external application of the following formula:—

Ry Ozonic ether	3iv.
Pure lard	3iv.
Benzoic acid	grs. 40.
Attar of roses	gtt. iv. M.

Apply over the whole surface of the body three times a day for a fortnight, and twice a day for another week or ten days.

In combination with this outward application, he orders for children one to two teaspoonfuls, or for adults a dessert-spoonful to a table-spoonful, of the following mixture:—

Ry Ozonic ether	3ij.
Pure glycerine	3iv.
Citric acid	3j to ij.
Distilled water	q. s. ad 3viij. M.

This mixture slowly swallowed, he says, is better than a gargle, improves the throat symptoms, and especially disinfects the exhalations.

Dr. Moffitt writes³ a letter from Sydney, in which he reports the result of Dr. Day's treatment in ten cases of scarlet fever, two of which were in adults; his patients felt so much relief to the cutaneous irritation that they frequently requested a renewal of the application of the

¹ London Lancet, November 25, 1876.

² Medical Examiner, November 2, 1876.

³ Idem.

ointment. From Dr. Moffitt's observation of this mode of treatment he suggests that the chief advantage lies in the comparative immunity from contagion to the attendants, and believes that the danger of infection is reduced to a minimum. "There has been no second case in any of the houses where this treatment has been fairly used, with one exception, and that was clearly traced to a child who had escaped where this treatment was adopted, and was thought to be safe, going into a neighbor's house where no precautions were taken. She caught the disease and brought it home. She was immediately put under the ozonic-ether treatment and made a good recovery."

Both of the above writers state that scarlet fever has been a great scourge and epidemic in the towns in which they each live, and that they are very much encouraged by the success of the above treatment in stamping out the epidemic.

Unfortunately, we have not at present any data to show what is a fair proportion of deaths to the number of cases in an epidemic of scarlet fever. This disadvantage prevents a proper appreciation of the various and reputed remedies against the terrible scourge of a scarlatinal epidemic. As there is at present no standard specific treatment for this disease, and certainly none but the isolation method, which possesses the advantage of destroying its means of propagation, physicians would be justified in giving to either of the above treatments a fair trial, since neither appears to be injurious even if it be of no value in checking the mortality. The cold bath, wet pack, and excessive use of quinine which have been so generally used of late had not the advantage of innocuousness when first introduced. We must admit that the mortality from scarlet fever has been so variable with different practitioners and in different localities, that the profession has some show of justice in feeling skeptical at the suggestion of a new remedy. It should be remembered that ozonic ether is very inflammable. Dr. Hogg,¹ in Notes on Infantile Diseases, remarks that Dr. Day's ointment costs four shillings per pound; and that "inunction with oils protects the skin when changing, indeed from the very first, and lessens the liability to kidney dropsy so often caused by cold caught during the period of desquamation."

Sulpho-Carbonate of Sodium in Diphtheria.—Dr. Anthony² has given this drug to the amount of one hundred and twenty grains (7.774 grammes) to a child seven years old. It may be combined with sulphate of quinine, tincture of the muriate of iron, carbonate of ammonia, or given in brandy, whisky, wine, syrup, or any aromatic water. He suggests its mixture with sugar as a very good method of administration to children. His rule is to begin the administration of the rem-

¹ Medical Times and Gazette, September 2, 1876.

² Medical and Surgical Reporter, January 13, 1877.

edy as soon as the disease is recognized, and to continue it in increasing doses until its effect on the disease is manifest, then gradually to diminish the dose and increase the intervals between each dose. He observes that four parts of the salt represent one part of carbolic acid, and that in one case the odor of the acid was plainly perceptible in the urine. It is hardly fair, however, to give credit to this agent for causing a cure in any of the eighteen cases reported; one of these (a delicate child three years of age) succumbed to the disease in thirty-six hours from its invasion; if this drug acts by preventing the morbid action of the poison, one would naturally suppose that its antiseptic properties would commence almost immediately after the administration of the remedy. That the successful treatment of the other seventeen cases in which he tried the sulpho-carbolate of sodium was not dependent upon this drug alone can be gathered from the fact that he associated with it the treatment by tonics, by local action upon the false membranes, and by strict attention to the hygienic surroundings of his patients.

Administration of Salicylic Acid. — Mr. Erskine¹ states that the inconvenience of giving this drug in powder is due to the evolution of carbonic acid and carbolic acid, thus causing an irritation and difficulty of swallowing. This effect can be avoided by the following mixture:—

R _y Acidi salicylici	
Potass. bicarbonat.	āā grs. xv. or 1 gramme.
Aque	3j. or 30 grammes. M.

A decomposition in this mixture produces carbonic acid and salicylate of soda. If this view of the action be correct, it would seem advisable to prescribe, *ab initio*, salicylate of soda.

Topical Action of Remedies. — Mr. Gasquet² in a very excellent and short discourse advises the application to clinical experience of the theoretical knowledge derived from physiological and pathological researches. The neglect of so doing makes the clinician responsible for the tardy progress of therapeutical science. He concludes his paper with the following propositions:—

"1. A remedy applied to the surface of the body may be absorbed, and may then produce certain direct effects upon the *tissues* of the part. Probably the local action of mercury and iodine are examples of this kind of action; perhaps, also, the pustulation of tartar emetic and croton-oil is due to an eliminative irritation of the sudoriparous glands.

"2. Paralysis of the terminal branches of the motor and sensory nerves, and the arrest of secretion by belladonna, may be explained by the direct action upon the nerve fibres of the part.

"3. Hyperæmia, inflammation, and all more complex perversions of nutrition produced at the seat of application by remedies are due to reflex vaso-motor action, usually of the kind at present called inhibitory.

¹ Edinburgh Medical Journal, November, 1876.

² Practitioner, January, 1877.

"4. 'Counter-irritation' and all other secondary or distant effects of the local application of remedies are due to reflex vaso-motor action, excited by the primary effect of the application, and propagated by means of the nerves.

"5. In some cases, at least, these secondary effects tend to reproduce in kind the impression produced at the seat of application. According to the commonly received hypothesis of inhibition we should expect this law to apply only to such instances as are mentioned under heading 2, and not to such local results as are due to reflex vaso-motor action."

On the Relief of Pain by External Application of Chloral Hydrate.
— Dr. Dowse¹ writes: "My practice seems to show that chloral hydrate acts directly upon nerve matter and subdues muscular movements by reflex inhibition of motor centres, or perhaps indirectly by inhibition of vaso-motor centres." Whatever truth there may be in his deduction, he produces evidence of twelve cases in which the external application of this remedy relieved excessive pain. In most of these cases the pain was seated in cancerous or other forms of ulcerated surfaces, but in one the pain was simply neuralgic, pleurodynia, and was uncomplicated with local inflammatory action. Moreover, in some of these cases the internal administration either of opium or chloral did not relieve the pain as efficiently as the local contact of chloral.

Dr. Dowse used the four following solutions of chloral:—

No. 1.	Ry Chloral hydrat.	3 iv. or 15,548 grammes.
	Aque	Oj. or 473/0 cub. cent.
No. 2.	Ry Chloral hydrat.	3 iv. or 15,548 grammes.
	Glycerini	3 j. or 29/58 cub. cent.
	Aque	Oj. or 473/0 cub. cent.
No. 3.	Ry Chloral hydrat.	3 iv. or 15,548 grammes.
	Sol. zinc. chlorinat.	3 ss. or 14/76 cub. cent.
	Aque	Oj. or 473/0 cub. cent.
No. 4.	Ry Chloral hydrat.	3 iv. or 15,548 grammes.
	Ferri perchloridi	3 ij. or 7/774 grammes.
	Aque	Oj. or 473/0 cub. cent.

In applying these solutions to raw surfaces "folds of lint just the size of the part must be saturated with the solution and brought in close contact with it, then three or four layers of lint wrung out of hot water placed upon them, and over this a piece of oiled silk."

Scalds and Burns.— Dr. Riddell² has used the following mixture in an aggravated inflammation caused by a scald from boiling water:—

Ry Hydrate of chloral	3 iij. or 11/661 grammes.
Carron oil	3 vj. or 177/18 cub. cent.

This mixture was applied by means of cotton fitted as a mask to the face, allowing spaces only for the mouth and eyes. Within a minute or two only the sharp, stinging sensation at first experienced was followed

¹ Medical Examiner, October 26, 1876.

² Medical and Surgical Reporter, January 5, 1877.

by a rapid diminution of pain. This latter was also associated with drowsiness. The patient rapidly improved.

Chloral Hydrate a Solvent for Fats.—In the same journal a writer¹ says that chloral hydrate is a solvent for fats, so much so that solid fat becomes liquefied by contact. "Hence it is not advisable to prescribe, for instance, chloral with lard, simple ointment, or even with simple cerate, in a very large proportion; with oleum theobromæ it forms an unctuous mass, but it is almost an impossibility to make a suppository from this composition." Equal parts of spermaceti and oleum theobromæ will make a very convenient suppository for ten or twelve grains of chloral. Vaseline, three parts, and paraffine, two parts, make a very good base, but it does not melt as nicely into an unctuous mass as that formed by spermaceti and theobroma oil.

Congestion of Kidneys caused by Chloral Hydrate.—Mr. Charles Orton² states from his observations of post-mortem appearances in two patients and from experiments on animals who died after large doses of chloral hydrate, "that congestion of the kidney may and almost invariably does follow the use of chloral."

Chloral Hydrate in Tetanus.—Mr. J. H. Salter³ reports the successful use of this remedy in an aggravated case of traumatic tetanus of two weeks persistence. He administered small doses varying from six grains to ten grains (.386 to .647 gramme) every two or three hours, according to the frequency and violence of the tetanic spasms. A careful review of the case might possibly suggest the suspicion that there are some grounds for supposing a complication with delirium tremens, as "the disease resulted from a wound received during a fit of drunkenness and followed by exposure to unusual cold, in a subject debilitated by habits of intoxication, . . . of inferior intellectual powers." The value of chloral hydrate in mania a potu is sufficiently well known.

Treatment of Leucocythæmia by Phosphorus.—Dr. Gowers, Dr. Greenfield, Dr. Goodhart, and Sir William Jenner each reported to the Clinical Society of London, November 24, 1876,⁴ cases of leucocythæmia treated by phosphorus in doses of one thirtieth of a grain (.002 gramme) three times a day. Apparently none of these cases received any decided benefit.

(To be continued.)

¹ L. E. S., page 19.

² Edinburgh Medical Journal, November, 1876.

³ Practitioner, December, 1876.

⁴ British Medical Journal, December 2, 1876.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

A. L. MASON, M. D., SECRETARY.

JANUARY 27, 1876. Forty-nine members were present; the president, Dr. WILLIAMS, in the chair.

Herpes Zoster Auricularis.—DR. C. J. BLAKE reported the following case:—

C. McC., four years of age, came to the Infirmary December 14th, with purulent inflammation of the right middle ear. The lining of the external auditory canal was somewhat swollen, and there was a large perforation of the membrana tympani, through which flowed a muco-purulent discharge. After cleansing the ear the mucous membrane of the tympanic cavity was seen to be red and swollen. There was in addition a post-aural abscess, extending from the level of the upper border of the auricle downward over the mastoid to a point on a level with the meatus, pressing the auricle forward so that it stood nearly at a right angle to the plane of the head. An opening was made at the point of greatest prominence, liberating about an ounce of pus, with relief from the pain, which had been severe for three days, and diminution of the febrile symptoms. Five days later a probe passed inward along the posterior wall of the meatus detected a minute surface of rough bone at the depth of about an inch. The ear was syringed daily with an astringent solution, the wound behind the ear was kept open, and the case progressed favorably until January 6th, when severe lancinating pain occurred in front of the ear, and continued at intervals for two days, being worse at night. On examination, January 8th, I found seven reddish patches, of irregular outline, the color merging into the color of the surrounding skin, occupying a space about two and a half inches long by one inch wide in front of the auricle, the uppermost patch extending upward toward the temple; there were no bullae, but before the disappearance of the reddened patches, which occurred spontaneously within a week, numerous opaque, yellowish spots appeared upon each reddened surface. The patches appeared to the touch to have an indurated base. In addition, the submaxillary gland was somewhat swollen, and there was slight salivation. January 14th, the patch in front of the ear had entirely disappeared, and the skin was smooth and fresh, but there having been a recurrence of pain in the depth of the ear, accompanied by febrile symptoms, and the posterior wall of the canal being somewhat swollen, a free incision was made at the point at which the probe had detected bare bone, with the liberation of a few drops of pus and with relief.

The occurrence of the eruption in front of the ear coincidently with the salivation and enlargement of the submaxillary gland is the principal feature of interest in the case, as the point of irritation may, in all probability, be traced to a perineuritis of the chorda tympani, this view being supported by the anatomical relations of that nerve and by the only similar case of which I have any knowledge, reported by Dr. Guerdner.

DR. JEFFRIES said that he had seen the case, and agreed with Dr. Blake in

regard to the diagnosis. At first sight it might have been taken for eczema, but on more careful examination the blotches were evidently herpes in an aborted condition, the epidermis being raised in hard lumps, as is often seen in other situations. A number of plates which were shown indicated that the locality of the eruption in this case was not on any of the tracts where zoster which is traceable to the trigeminus manifests itself. Dr. Jeffries referred to the fact that double zoster was said not to occur on corresponding portions of both sides of the body, though one of Hebra's plates was exhibited with double zoster of the face.

DR. HUNT said that he thought that even Dr. Jeffries's confirmation of Dr. Blake's diagnosis failed to establish its correctness. No author has described such an affection, for the simple reason that a herpes zoster in this region would fall in the district of herpes zoster collaris, as described by Hebra, Neumann, and others. The symptoms in this case are referred to an inflammation of the chorda tympani, and the chorda tympani may have suffered more or less irritation, but there is nothing to establish even this; the increased salivary secretion, in the absence of all gustatory phenomena, might be referred to other causes. If the chorda tympani were inflamed it would be stretching a point to say that it caused the herpes; if we had a herpes zoster ophthalmicus and an iritis coexisting, we should not think of regarding the affection of the skin as a result of the iritis; we should treat them both as expressions of a neurosis affecting the trigeminus; there is no nerve that bears a relation to the ear like that which the trigeminus bears to the eye, consequently the apparent analogy is far fetched.

Dr. Hunt thought that few of those present would associate the affection in this locality with the trigeminus, and the argument that it is a herpes zoster auricularis for the reason that it was *not* connected with the trigeminus was not in his opinion convincing. It seemed to him that the case was one in which a simple herpes, such as occurs about the ear, happened in conjunction with a purulent catarrh of the middle ear, in which there were some symptoms of irritation of the facialis and more or less pain.

DR. BLAKE remarked that in purulent inflammation of the middle ear changes in taste had been noticed in forty-two out of sixty-seven cases.

Partial Amputation of Foot. — DR. J. C. WARREN showed a patient whose left thigh and a portion also of the right foot, had been amputated. A boy about nine years old was brought into the hospital, having been run over an hour before in attempting to get on to a train in motion. The thigh was amputated at the junction of the middle and upper thirds. The toes and the integuments which covered the metatarsal bones of the right foot were badly mangled, with the exception of the great toe, the bones and skin of which were uninjured. The injured parts having been removed it was found possible to cover the remainder of the foot with the sound skin, although the flaps were somewhat scanty. The phalanges and metatarsal bones of all the toes except the great toe were thus removed, the latter remaining as an elongated appendage projecting from the tarsus. The wounds had healed rapidly under the "salicylic cotton" of Volkmann, which Dr. Warren had had prepared by Mr. Clough, the hospital apothecary. The case was shown as a specimen of conservative

surgery, illustrating the advantage of the principle "of the least possible sacrifice of parts" as laid down by Bryant, who reports a somewhat similar case, with an illustration, in the practice of Mr. Key. In this case the cuboid and the two external cuneiform bones were also removed. The advantages of such a foot over one amputated by Lisfranc's or Chopart's method is obvious; the leverage remaining normal prevents the contraction of the tendo Achillis and the consequent tendency to pes equinus. In the case reported a certain amount of shock was prevented by refraining from amputating higher up, a gain of some importance in a case of double amputation. Two days after the operation the case had come under the care of Dr. Cabot, and had been treated by him since.

Rheumatic Fever. — DR. T. M. ROTCH reported two cases of acute rheumatism, with high temperature and extensive affection of the joints, treated with salicylic acid. The specific effects of the drug in reducing the temperature and controlling the pain were noticed, also the recurrence of the bad symptoms when the acid was omitted.

Abnormal Fœtus. — DR. CHADWICK presented a specimen sent by Dr. Leonard, of East Boston, to Dr. Jackson for the museum. A full description will appear elsewhere.

Ovarian Cyst. — DR. M. H. RICHARDSON showed a large ovarian cyst with several smaller ones in its walls. The case, with others, will be reported by Dr. Cabot in whose practice it occurred.

Acute Tubercular Meningitis. — DR. WEEKS reported a case of this disease in a child three years old, as follows: —

The patient never had a severe illness before and never received a severe injury. She had not been subjected to any debilitating influences. Her parents are as well as the average of parents and show no tendency to tubercular diseases. No record was found of a case of tubercular disease in the family history nearer than the grandmother on the mother's side. The father's family are entirely free from consumptive diseases. The child's illness began about January 1, 1877. At first she complained only of feeling tired, was unusually peevish, and had an indifferent appetite.

About January 7th she began to vomit after taking food, and soon nothing was retained. This stage continued one week. January 14th, Dr. Weeks was first called. The child lay on its mother's lap, with eyes closed and unwilling to be disturbed.

Symptoms: first day, temperature only a little raised; skin dry and harsh; pulse 72 per minute, and irregular in volume and rhythm; respiration slow and sighing; face alternately flushed and pale; conjunctivæ clear; pupils contracted and equal, but responded to light. Auscultation showed only coarse mucous râles at the base behind. The bowels had been moved by remedies.

Second day, the left pupil more dilated, twice the size of the right; conjunctiva injected; convulsive movements of the eyes; slight external strabismus; more fever; pulse and respiration more irregular; less consciousness; not much pain; no vomiting.

Third day, more pain which was paroxysmal; eyes more injected; child very restless and tossing about; seemed to hear and to recognize the parents' voices, but could not see; asked for nothing, and did not desire to be moved.

Fourth day, she fell into a comatose state; temperature considerably increased; varying pulse, still slow; respiration more irregular, intermissions of from five to fifteen seconds occurring several times a minute.

From this date until the 26th of January the decline was gradual, and was marked by no unusual symptoms, but rather by the absence of some that are common. There were no convulsions, no complete paralysis of either limb. By mild aperients the bowels were moved almost daily.

The treatment at first consisted of cold applications, bismuth, ergot, bromides, and aperient solutions. Later, quinine, brandy, and ammonia were given. The nourishment was milk and beef tea.

The autopsy, by Dr. Fitz, showed that the surface of the brain was dry and smooth, the meshes of the pia mater compressed, and the arachnoidal veins injected. The sulci were indistinct. Numerous minute gray tubercles, hardly a line in diameter, were found at the base of the brain, along the fissures of Sylvius, and on the upper and anterior surface of the cerebellum. The ventricles were dilated to a marked degree, and contained a large quantity of clear pale fluid. The ependyma was thickened, and the septum lucidum a pulpy mass. The brain substance in general was not particularly altered.

The bronchial glands were moderately enlarged and cheesy, and on microscopic examination of the liver occasional sub-miliary tubercles were found, not large enough to be evident to the naked eye. The other organs of the body presented no unusual appearances.

DR. JACKSON asked whether the lungs were quite healthy, and remarked that he had seen, in adults but not in children, cases of tubercle in the membranes of the brain without any disease of the lungs or bronchial glands. These cases ran a very different course from ordinary tubercular meningitis.

DR. WEEKS said that apart from the enlargement and cheesy condition of the bronchial glands no disease was observed in the lungs.

DR. ELLIS had not seen a similar case in a child.

DR. JACKSON also thought the duration of the disease unusual.

DUHRING ON DISEASES OF THE SKIN.¹

In our brief notice of the *Atlas of Skin Diseases* by Dr. Duhring,² we stated that a text-book by the same author was about to appear, and we are now pleased to announce its publication. There is always room for another good book, even when the demand has been so generously supplied as in dermatology during the past few years. There remained, however, one want to be supplied, a satisfactory, practical treatise for the practitioner and a text-book for the pupil and teacher, complete in all details and covering the whole field of dermatology. This want no one could appreciate more than the author, as special practitioner and teacher in this branch of medicine, nor is there

¹ *A Practical Treatise on Diseases of the Skin.* By LOUIS A. DUHRING, M. D., Professor of Diseases of the Skin in the Hospital of the University of Pennsylvania; Physician to the Dispensary for Skin Diseases, Philadelphia; Author of *Atlas of Skin Diseases*, etc. Philadelphia: J. B. Lippincott & Co. 1877. 8vo. Pp. 618.

² JOURNAL, July 13, 1876.

any one better fitted by temperament and thorough acquaintance with the subject to supply it. Other recent writers on dermatology in our language have either treated the individual diseases very unequally, or have occupied much space by the discussion of disputed points and by the expressions of personal opinions, which are entirely out of place in a work intended for the practitioner and student of medicine. These faults, so clear to an author, Dr. Duhring has carefully avoided, aiming only to present the subject in a full, unprejudiced, and practical manner.

The first part of the book is general in character, and is devoted to the consideration of the anatomy of the skin, and of the symptomatology, ætiology, pathology, diagnosis, treatment, prognosis, and classification of its diseases. These important subjects are all set forth at ample length and with good judgment. The classification adopted, we are happy to state, is that of Professor Hebra, but slightly modified, and it is pleasant to record the fact that we may have a new book on dermatology without a new system of classification to add to the present confusion. The chapter on the anatomy of the skin is illuminated by several fresh and clear cuts, which, with some particularly good drawings of the vegetable parasites, are the only illustrations in the volume.

In his treatment of the special diseases the author gives first a brief definition of the affection, then a very full description of its symptoms in all the stages and varieties in very clear language. The ætiology of the disease is then considered, and the pathology is discussed in its relations to the observations of the many recent investigators in this field of research. The matter of differential diagnosis is presented with exceeding care for the benefit of those who have little experience in the recognition of skin diseases. Due attention is also given to prognosis. The treatment forms, perhaps, the most valuable part of the book, for it is given in such full detail, and with such special directions and excellent judgment, that one who studies it with proper care cannot fail to apply these fruits of the author's experience and research successfully in the management of these affections.

But the reader may ask, Are there no faults, no errors, in the book which are worthy of notice? There are many points of secondary importance upon which the author is at variance with some other writers on dermatology, some few points on which we think him wrong in his conclusions, but as we have not space to discuss such matters of difference at proper length, we prefer to leave them all unspecified, and this the more willingly because the book is in general so free from theories and from hasty inferences from insufficient observation. We regard it as the most complete and satisfactory work on dermatology in the English language, and most heartily commend it to the practitioner and the student.

THE URINE IN DISEASE.¹

THIS is a large chart, about twenty-five by thirty-three inches, containing five columns of printed matter. It is evidently intended to be a condensed

¹ *The Urine in Disease. Rules for Analysis, Pathological Conditions, and their Significance.* By F. M. BLODGETT, M. D. HARV. For Physicians' and Students' Use. James Campbell, Publisher, Boston, Mass.

summary of the rules to be followed in making an analysis of the urine. The first column is devoted to tables. Those which explain the "Composition of Normal Urine" and the "Proportion per Fluid-Ounce of Urinary Constituents" are copied verbatim from Flint's Examination of Urine, and those concerning the "Excretion of Urine Solids," and the "Influence of Diet," with the one beginning "Normal urine contains," from Harley's work on The Urine and its Derangements. These tables are not credited to the above authors as quotations, and the only reference in the whole chart to authorities on the urine is at the foot of the first column, where it is stated that the "authors consulted" have been "Heller, Thudicum, Beale, Neubauer, J. C. White, Vogel, Harley, Austin Flint, Jr., Roberts, Piffard." It would have been much more accurate had Dr. Blodgett said authors *quoted from* rather than *consulted*, for by far the greater part of the remaining four columns consists of sentences and even whole paragraphs copied verbatim, or nearly so, from the above-mentioned works of Flint and Harley; and in many cases where there is any deviation from the exact language of those authors, the sense is entirely changed, or the copied sentences are so badly connected as to render the whole clause utterly devoid of meaning.

Thus we find under the head of "Sugar" the following: "We have only two forms of diabetes. 1st. That by 'excessive formation.' 2d. That by 'diminished assimilation.' An inordinate thirst and excessive elimination of urine indicates that the disease is already in its second stage; in the first stage there is loss of sugar alone in the urine; in the second there is loss of sugar, with loss of the flesh in the urine." What Harley does say on page 219 is: "It is evident that we may have two perfectly distinct forms of the same disease, one of which might be named *diabetes from excessive formation*; the other *diabetes from defective assimilation*," and on page 220: "An inordinate thirst and excessive elimination of urine is in all cases an indication that the disease is already in its second stage, the first stage being indicated, in those arising from *excessive formation*, by saccharine urine alone, and in those from *defective assimilation* by saccharine urine coupled with loss of flesh."

Again, under the heading "Uræmia" we find in the last three lines: "In ammonæmia, the urine, the breath, and the perspiration, are ammoniacal. Of course catheterization would be easily indicated. But in no case is *ammonæmia*¹ within the reach of instrumental interference." In Harley (pages 58 and 59) we find: "In ammonæmia the urine is ammoniacal when passed. The breath and perspiration are ammoniacal. . . . In the first place, ammonæmia arising, as it generally does, from directly remediable causes, is much more frequently under our control than uræmia. For example, when the ammonæmia is due to the simple retention of urine in the bladder, repeated catheterization is usually followed by a speedy cure. In no case is *uræmia*² within the reach of instrumental interference."

Examples similar to the above might be multiplied, although these would render the chart absolutely worthless as a guide to urinary analysis were they the only errors. But there are numerous others, among which may be mentioned the substitution of 2.15 instead of 1.62 in one of Flint's tables; the

¹ Italics are ours.

² Italics are ours.

word *ten* instead of *two* in the description of the methods given for the estimation of the amount of sugar and of urea in the urine, both of which descriptions are copied from Harley; the statement that "the best mode of detecting bile in the urine is Pettenkofer's test," etc., etc. The chemical, orthographical, and grammatical errors are too numerous to mention. That portion of the examination of urine which is the most important to the general practitioner, namely, the microscopic examination of the sediment, is not referred to except by six figures representing the appearance of "uric acid," "nitrate of urea," "triple phosphates," "oxalate of lime," "blood, pus, and spermatozoa," and "epithelial cells and tubuli," all of which, with the exception of the second and fourth, are very poor.

In short, this chart is worse than worthless, since, if the rules laid down in it are followed, erroneous conclusions must inevitably be arrived at, and had it not been for this consideration it would not have been deemed worthy of a notice.

E. S. W.

THE CITY HOSPITAL.

THE new City Hospital, as it might appropriately be called since the completion of its four new buildings, merits the attention and the approval of the medical profession. Probably most physicians are unaware of the great and radical changes which have taken place there within two years. These changes may be properly classified as follows: (1) sanitary, (2) executive, (3) economic. The first consists not only in the erection and occupancy of admirable new pavilions, but in the thorough reform and remodeling of the old ones. The foul ward is now the sweetest portion of the hospital. Its air supply has been greatly increased, and is conducted directly into the rooms from the external atmosphere. The old medical and surgical wings, formerly insalubrious from defects in drainage and from fault of construction, whereby a low basement was used as a ward, have also been remodeled. The whole system of sewerage has been altered, the sub-cellar cemented, and the basement converted into an open air-chamber for the wards above.

The result of these changes on the sweetness and healthfulness of the air in the wards has been most marked. Here also fresh air has been brought directly into the buildings, from openings in the side walls of the pavilions themselves, instead of being filtered through a long series of heated and ill-ventilated sub-cellars. Of the new buildings, four in number, it can properly be said that they will compare favorably with the best parts of any modern hospital. They are sunny, fresh, light, clean, and healthy, and having been occupied nearly a year their defects, if any existed, have had time enough to become manifest.

The condition of wounds and the general percentage of recovery among the sick has been excellent. Pyæmia is rare; gangrene, which threatened to be epidemic at one time, in the old buildings, has wholly disappeared. Rapid recoveries in the puerperal state, of which a certain number of accidental cases inevitably are present, and a successful case of ovariotomy recently performed, attest the improved sanitary condition of the hospital.

The executive reforms have been equally great. System and method in

administration show marked results. Discipline among employes and promotion and probation among the nurses have vastly improved the service of the hospital.

It is gratifying in the present period of commercial depression to know that reforms in economy have also been extensive and successful. We derive the following proofs of this statement from the forthcoming official report of the hospital:—

	1876-6.	1876-7.
Cost of maintaining hospital	\$109,205	\$113,000
Income from paying patients	\$1277	\$5000
Net annual cost of maintaining hospital	\$107,928	\$108,000
Daily average of patients	226½	270
Number of weeks of board furnished	11,883	14,000
Net cost per week of each patient	\$9.25	\$7.75
Salaries and labor	\$31,938	\$30,800

Compared with last year, the cost of salaries and labor will be diminished about one thousand dollars, and the number of persons employed increased by twelve. At the same time the number of wards has been increased from ten to fifteen, and the number of patients increased twenty per cent. At the old rate of \$ 9.25 for each patient per week (instead of \$7.75 as it is now), the annual cost of maintaining the hospital would have been increased about twenty thousand dollars. Had this saving been effected at the expense of the health or the comfort of the patients we should be the last to commend it. The food, however, is abundant and good, the saving in cost having been effected by wholesale marketing, facilities for keeping, cooking, and distributing food, and the improvements in the executive management of the hospital, already noticed.

These marked improvements have been largely due to the care and devotion of the medical and surgical staff; great credit should also be given to the board of trustees for the success which has attended their efforts to obtain the best buildings, a result to be reached only by a practical mechanical knowledge, which was possessed in a high degree by one of their number.

The care and skill shown in the executive department, together with the excellent hygiene of all the buildings, could be maintained only by a superintendent of the ability of the one which the hospital is so fortunate to have. At such a moment the removal from office of any of those who have done their work so well would seem, to say the least, to be out of place, while the introduction of any element not in harmony with the present government of the hospital, as we fear is contemplated, could not fail to be injurious to its welfare. If kept in the future, as it has been in the past, free from partisanship and from politics, it cannot fail to continue in the first rank of charitable institutions, and to command the respect and pride of all our citizens.

ANIMAL BROTH.

An interesting article on animal broth as an aliment in disease is contributed to the *New York Medical Journal* of February by Dr. J. Horton. It is probable, he says, that no one article of diet has been more relied upon in the

past in cases of great extremity than the one in question. Within the past few years the demand for it by physicians in practice has been so great that large manufactories have been established in several places. One, situated on the Uruguay River, South America, used in the production of this article, during eight months of the year 1873, the flesh of 122,075 cattle, of the value of \$1,650,000. The extract of meat derived from this enormous quantity of flesh was 570,000 pounds. When one contemplates this immense production and remembers that it is only one of several manufactories in the world, and that the product of them all combined does not contain a single pound of what is strictly termed food, we can only wonder that this great waste of time, money, and material still continues.

Were he called upon to assign to animal broths their proper position among the agents we give to sustain a patient where the danger of dissolution lay in asthenia, he should say: first, alcohol; secondly, organic salts; lastly, tea and coffee; for no doubt the physiological action of animal broths is due to the organic alkaloids and acids which they contain (lactic acid, inosinic acid, creatine, creatinine, inosine, etc.), and as their effects on the system are very similar to those of the active principles of tea and coffee (theine and caffeine), from which they differ mainly in strength, it must be concluded that animal broths, beef tea, and extract of meat are more a "vital restorative than a nutritious food." Professor Liebig classes beef tea and coffee under the head of "nervous food," as they are of themselves incapable of supporting nutrition and maintaining life, yet they have temporarily sustaining properties, greater than tea and coffee, but less than alcohol.

The saline-mineral constituents of beef tea are the acid phosphate of potassa, phosphates of magnesia, lime, and soda, chloride of potassium, and a small quantity of chloride of sodium. They do not participate in the chemical changes going on in the body, but serve by their presence to enable those changes to go on which are necessary for the process of nutrition.

His experiments show that half a pint of water to one pound of meat furnishes as much extractive matter as any greater amount; that long boiling does not increase the strength; that from four to six hours' maceration is desirable when time will allow; that being shaken thirty minutes equals eight hours' maceration, which is quite an object where time is valuable.

Where we wish to get some food from the meat, pepsin and hydrochloric acid are important additions, or, when both are not at hand, either may be advantageously used alone. The insoluble fibrous matter may be carefully dried and powdered in a mortar, and then mixed with the tea; in this way we get the nutritious matter of the meat in a finely divided state, and it will be easily digested. Where the tea is prepared daily, it is more convenient to use one day's meat for the next day's tea; by this means it has time to dry, and is more easily pulverized. When hydrochloric acid is used alone in the preparation of beef tea, and the tea is too acid for the patient, it may be neutralized by the addition of sodic carbonate, thus converting it into sodium chloride.

MEDICAL NOTES.

— There has been a threatened extermination of the Spitz dog, on the ground of the liability of this animal to convey hydrophobia. A hearing was given to this question at the State House recently, a variety of testimony being offered. Although the species may be no more susceptible to the disease than any other, there is no doubt about the disposition possessed by this animal, which renders it peculiarly unsuitable to the position of a pet or house dog, in which snarling and biting are most inappropriate not to say dangerous qualities. Certainly at a time when hydrophobia is prevalent, as will be seen by the cases which we publish in this number, it is desirable that all ugly-tempered brutes of the dog family should be securely muzzled or exterminated. The increasing prevalence of hydrophobia should render the authorities very strict in their enforcement of the laws which relate to the licensing of these animals.

— An advertisement has appeared from time to time in one of our daily papers setting forth the merits of a book entitled *The Science of Life; or Self-Preservation*, the advertiser claiming an indorsement of his work by the *London Lancet*. In an article entitled *Unscrupulous Advertising*, the *Lancet* protests that it has not at any time been guilty of noticing the book or pamphlet referred to, the title of which is sufficient to bespeak its pernicious character. One would hardly require the denial of a respectable journal to believe in the spurious character of such a statement. We should as soon expect our English contemporaries to believe that the so-called "Philadelphia diploma" was recognized in this country.

— *The British Medical Journal* gives an account of the Bressa prize, which was established by the will of Dr. Cesare Alessandro Bressa. With the interest of the property a biennial prize was to be established and administered in the following manner: "The net interest of the first two years to be given in premium to that person, of whatever nation or country he be, who shall have during the previous four years made the most important discovery or published the most valuable work on natural and experimental philosophy, natural history, mathematics, chemistry, physiology, and pathology, as well as geology, history, geography, and statistics. The net interest of the two following years to be given to an Italian who, by judgment of the above-named Academy of Turin, shall have made the most important discovery or published the most important work on any of the above-mentioned sciences. The prize will continue to be distributed in the same order." The Academy has accepted the task, and the first open prize will be given in 1879. The value amounts to twelve thousand Italian *lire*, or nearly four hundred pounds sterling. The Academy will choose the best work or discovery, whether or not it be presented by the author. The prize will in no case be given to any of the national members of the Academy of Turin, resident or non-resident. In the year 1881 the second Bressa prize will be given to an Italian, and so on; every four years there will be a Bressa prize for competition among scientific men of any part of the world, and every four years one which can be competed for by Italians only.

— *The Lancet* reports from the *Indian Medical Gazette* an account by Dr.

R. T. Wright of the manner in which the native doctors in India cut for stone. The patient is first drugged with *cannabis indica*, and the bowels are emptied, after which he is tied up in the usual lithotomy position. The practitioner then, without using any sort of staff, passes the index and middle fingers of his left hand into the rectum, while with his right hand he presses on the supra-pubic region, so as to bring the bladder and its contents as far as possible within the reach of the left hand. He then pushes the stone towards the perinæum with the fingers which are in the rectum, and then with an old razor makes a free incision *transversely* across the perinæum, knowing and caring nothing about the anatomy of the region, but cutting deep enough to reach the stone, which he hopes will come out with a jerk when he has cut far enough. If it does not jump out he either pulls it out with his fingers or forceps, or extracts it with a goat's horn or a rough scoop. Undue hæmorrhage, said, however, to be unusual, is stopped by the application of ashes and earth.

— Dr. N. S. Davis, in an article published in *The American Practitioner* for January, 1877, calls attention to the remedial value of the *cœnotheca biennis*, or evening primrose. He regards it as a mild but efficient sedative to nervous sensibility, acting more especially on the pneumogastric nerve. Hence its adaptation to the treatment of such cases of respiratory or gastric trouble as involve a morbid sensitiveness either in the laryngeal, pulmonary, or gastric branches of that nerve, whether of an acute or chronic character. It is certainly worthy of further trial in the treatment of such affections as whooping-cough, spasmodic asthma, and certain sensitive conditions of the stomach interfering with healthy digestion.

The *cœnotheca biennis* grows abundantly throughout all the Middle and Northern States, if not throughout our whole country. As a medicine it may be used in the form of an infusion or fluid extract. The former may be given to adults in doses of one or two table-spoonfuls, the latter of from twenty to thirty minims repeated every three, four, or six hours, as the case may require.

— Privat-docent Oser, in a recent number of the *Wiener medicinische Presse*, says that two years' additional experience has confirmed him in the belief that an elastic tube is much better for the purpose of rinsing out the stomach than the gutta-percha sound hitherto in common use. The tube is of India rubber, two meters long, and with perfectly smooth surface; both ends are rounded off by heat; two sizes are employed, the smaller tube having a lumen of eight millimeters and a wall two and a half millimeters thick, and the larger one a lumen of ten millimeters and a wall of three millimeters. This latter is preferable, as it is less compressible and allows the passage of larger substances through it. The tube is passed at the first sitting by the patient himself, who takes it between the forefinger and thumb of the right hand, lays the end on the back of the tongue, makes a swallowing act, and then pushes it gently along, during successive pauses between the acts of swallowing, deeper into the œsophagus. Patients learn the manipulation at the first sitting; the method of introduction causes decidedly less annoyance than the ordinary passage of a tube by the physician himself. The patient has less anxiety, gains confidence quicker in the manipulation, and the reaction is less. There is no danger of injury to the mucous membrane. After a few trials he can readily feel the

tube touch the lower end of the stomach and quickly recognizes the depth to which it should be passed to best allow of a free evacuation of the contents of the stomach. The action is on the principle of the siphon; the tube when fully introduced is pressed together between the fingers at the lips and the free end is filled with liquid through a tunnel. If the end is now sunk below the level of the stomach, the fluid flows out of the stomach in a strong stream. If the stream is interrupted by a contraction of the œsophagus or diaphragm, the tube is withdrawn about a centimeter and then pushed back; the stomach is thus induced to contract, and a beneficial influence upon the muscular coat is induced. In dilatation of the stomach from any cause and in chronic catarrh it is of service. Unfortunately, there are certain cases in which from the first the pharynx is so irritable that the procedure cannot be perfectly carried out, as the contraction is so great and the vomiting so persistent that the tube does not enter. Here, as well as in those cases where it is necessary to pump out solid particles of large size, it is necessary to have recourse to the stiff tube, as the exhaustion of air causes the flexible tube to collapse.

— Dr. B. W. Richardson, who in 1875 presented in an address before the Social Science Congress a picture of a Model City of Health, has recently described at the London Institution the Model Dwelling-House. To make a dwelling-house healthy he says we must have pure air, pure water, freedom from damp, daylight, and equable temperature, and these he says "are the five fingers of the right hand of health." The construction of the basement we are told must be reformed. It should "no longer be a living-place, a cooking-place, a laundry, a bottle vault, refuse-store, servants' bedroom, drain-trap, and lavatory," but an arched subway of one or more arches, with a free current of air through each. Water and gas pipes are to enter the house through it. One or more of the arches may be fitted up with furnaces or stoves, through which air can be drawn, and then, heated and purified, passed up into the house. But the basement is never to be entered by any direct shaft communicating with the rooms above it. The construction of the staircase must be changed. "In the present construction the staircase is the shaft of the dwelling through which all the products of respiration, combustion, and other forms of volatile impurity rise from the lower to the upper floors." In the model house the staircase is to be placed at the rear of the building, in a distinct shaft or tower of its own, leading straight from the ground-floor to above the level of the house. On each floor there is to be a door, and each flat is to be independently warmed, lighted, and ventilated. The shaft is to contain ventilating tubes, closets, lavatories, and a lift. The kitchen and the servants' dormitories are to be on the upper floor of the house; and on the flat, asphalted roof of the house there is to be a glass-covered garden in which the stair-shaft shall end, "and if any impurities reach this covered garden, with its summer temperature always derived from the kitchen just beneath it, these impurities will be consumed by the plants. Such are some of the principal points of the plan, regarding which the *Medical Times and Gazette* says: "We suspect the occupier of the model house would need a model income. . . . There is one objection that may be made to his [Dr. Richardson's] sanitary proposals, — they are too great and grand; too much like Utopian dreams."

MASSACHUSETTS GENERAL HOSPITAL.

SURGICAL CASES OF DR. WARREN.

[REPORTED BY O. T. HOWE.]

Contraction of Fingers from Burn; Plastic Operation. — M. M., a servant-girl, twenty-three years of age, entered the hospital August 12th. Twenty-one years before she received a severe burn on the hand, which resulted in contraction and nearly complete flexion of the fourth and fifth fingers. As this interfered with her work, four weeks before she entered the hospital she had the little finger, in which the contraction was greatest, amputated at the second joint. Finding that the contracted ring-finger still prevented a free use of the hand, she entered the hospital for further treatment.

August 13th. The following plastic operation was performed on the hand: the cicatricial connective tissue and skin holding down the ring-finger was divided, and the resulting raw surface was covered by a flap taken from the skin of the stump of the fifth finger, the first and only remaining phalanx of which was removed at the same time. The flaps were stitched together and dressed with carbolic cerate (five grains to the ounce), the hand being put on a splint so as to keep the finger extended. Although suffering from considerable pain after the operation, the patient did well until August 22d, when the hand and carpus became swollen and painful, necessitating an incision below the annular ligament, which let out a large amount of pus. From this time the wound healed rapidly, and when she was discharged, September 22d, the finger could be entirely straightened without pain and she was beginning to recover the control of it. When seen several months after the operation there had been little or no return of the contraction, and the patient had been able to use it with perfect freedom in her work.

Fistulous Opening near the Base of the Coccyx containing Hair. — C. L., twenty years of age, entered the hospital October 21, 1876. One year before she fell upon the ice, and soon after began to experience pain in the region of the coccyx. She was examined by her sister, who found a fistulous opening at the junction of the sacrum and coccyx. This had discharged thin, unhealthy pus up to the time she entered the hospital. On examination two fistulous openings were found in the median line of the buttocks, over the sacrum. The lower one was at the junction of the coccyx and sacrum, and the upper about an inch above it. A probe could be passed both upwards and downwards for a considerable distance. A diagnosis of hair cyst was then made.

October 23d. The girl was etherized and the sinuses freely opened. At the bottom of the abscess a coil of hair was found and carefully removed with the forceps. The wound was then dressed with charpie and myrrh wash, but it healed very slowly.

November 9th. The wound appearing stationary and the edges hard, an acid wash was substituted for the myrrh, and on December 5th the patient was discharged well. Several examples of this disease have occurred recently at the hospital, although there have been none before for many years.

A number of these cases are described by Dr. J. Mason Warren in his *Surgical Observations*. He explains their formation by the ingrowth of a hair or hairs from a single follicle. The occurrence of the affection always in the median line and between the folds of the nates is explained "by the constant pressure and moisture of the part, softening both the newly formed hair and the epidermic cells surrounding the mouth of the follicle." Patients applying for relief generally suppose, says this author, that they are suffering from fistula in ano.

Recto-Vaginal Fistula. — H. S., nineteen years of age, entered the hospital July 19th, with a recto-vaginal fistula following childbirth. Six months before she had been delivered of a large child. Forceps were used, and the perinæum was ruptured through the sphincter. The raw surfaces were united with the interrupted suture and union by first intention took place, leaving, however, a recto-vaginal fistula.

This at first was quite large, and a considerable amount of feces escaped through it, but during the six weeks previous to her entering the hospital it had diminished in size, so that nothing but, gas passed through. It barely admitted an instrument the size of a pen handle.

July 22d. The fistula was touched with strong nitric acid, and the patient put on liquid diet to avoid any operation of the bowels.

July 30th. Bowels were moved by castor-oil, nothing passing through the fistula.

For the next three weeks the fistula was touched every four days with a fine stick of argentic nitrate, and at the end of that time, there being no diminution in the size of the fistula, ether was given on August 20th, and, the edges of the fistula being freshened, the vaginal mucous membrane was dissected up freely on each side. A deep "bag-string" silver suture was passed from the posterior margin of the anus on the left side through the recto-vaginal septum above the wound to a corresponding point on the opposite side. This was intended to bring together the separated and retracted edges of the sphincter muscles, the evident cause of the fistula; superficial sutures were then taken both through the vaginal and rectal mucous membranes, in all eight. The patient was kept in bed on fluid diet to prevent a movement of the bowels, which had been well emptied before the operation. A dose of oil was given at the end of ten days and was followed by a free evacuation. One of the wire sutures was removed on August 28th, the rest at the end of a fortnight, and union was found to have taken place. The patient left the hospital a few days later.

Cut Throat. — M. R., forty-five years of age, entered the hospital October 1, 1876. She had been slightly deranged for several months. Two hours before her entrance she attempted suicide, by cutting her throat. She had made three incisions, resulting in a deep gash which, starting from just in front of the great vessels of the neck on each side, penetrated the upper rings of the cricoid cartilage, without, however, injuring the œsophagus. Ether was given, all bleeding points were tied, and a tracheotomy tube was inserted through the cut she had herself made. The incision in the throat was then carefully sewed up and dressed with compresses wet in carbolic wash (1 part to 40). The patient's pulse after the operation was feeble, and she received

two ounces of milk punch every two hours during the night. The next morning she was much better, and on the tenth day she took solid food. The stitches were removed on the fourth day. Union by first intention was secured only to a small extent. The wound, however, healed by granulation, and on November 5th the tube was removed. On November 11th she was discharged well.

LETTER FROM BALTIMORE.

MESSRS. EDITORS,—The subject of insane asylums and of treatment of the insane is more than ever agitating the public mind here. Since our last, attention has been directed to the almshouse, or "Bay View" as it is called, which answers the purpose of an asylum for insane paupers, and where it seems a case of cruelty and malpractice was alleged to have occurred. The report of the committee of investigation was duly received in the second branch of the city council and adopted. A minority report was also offered, accompanied by some fifty foolscap pages of evidence taken before the committee. The gentleman who presented it stated in explanation of his course that the other members of the committee had evaded the evidence in preparing their report, and had also failed to comply with the requirements of the resolution ordering the investigation, that the evidence should be submitted to the council for their judgment; that even if the evidence of the patient's friends were omitted, that of the officers at Bay View proved conclusively that although the charge of malpractice was not sustained, that of cruelty was; that the patient's legs were undoubtedly frost-bitten and not affected entirely with gangrene; that he was bound and manacled so as to be unable to cover himself with the bed-clothing, and confined alone in a cell, the door of which was shut between him and the heating pipes in the basement adjoining, and that the temperature in this cell had fallen from thirty-seven degrees above zero to only seven degrees above, which was certainly cold enough to cause frost-bite. After a running debate the minority report was rejected by a vote of five to two.

Dr. Chancellor's resolutions in reference to the transfer of the indigent insane from Bay View Asylum to Spring Grove has been called up in the city council, and occasioned, recently, a very extended discussion. He spoke of the superior facilities for treatment of the insane at Spring Grove. At Bay View, he said, raving maniacs were frequently confined in the same room with patients requiring rest and quiet, and the maniac's condition made worse by being shackled with heavy irons, and being tightly bound to prevent injury to himself or others. At Spring Grove, on the contrary, every modern appliance, approved by those who have had most experience with insanity in all its stages, is furnished.

The matter has at length attracted the attention of Governor Carroll to the management of all such institutions in the State. On Thursday last Dr. Chancellor, secretary of the State Board of Health, received a letter from the governor instructing him to make, at as early a date as is practicable, a thorough inspection of the prisons, asylums, public hospitals, and almshouses throughout the State; to examine carefully their sanitary arrangements, the number of inmates in each, their condition, and mode of treatment. The governor, who

first suggested this measure several weeks ago, further instructs the inspector in making this inspection to have especial reference to the insane paupers and the manner in which they are treated, as well as the methods adopted to restore them to reason. This investigation, we are informed, will begin in a short time, and a full and detailed report of the same will be made as soon as it is completed.

The salting of railway tracks has also been brought up and discussed, President Bowie, of the city passenger-railway company, speaking in his report of the advisability of a repeal by the council of the ordinance prohibiting the salting of tracks. He expressed the hope that the attention of the medical faculty would be directed to the matter. The following are a few of the opinions expressed by our authorities on medicine and hygiene, embracing also the views of some of our prominent practitioners: Professor William R. Aikin, analytical chemist, was of the opinion that salt had no direct effect upon the production of diphtheria. The manner in which salt upon the tracks might be expected to affect pedestrians was in the way of catarrhal affections, the mixture of salt with snow producing a compound of very low temperature, and causing the otherwise dry snow to remain liquid. The notion that a large quantity of salt finds its way into the atmosphere he believed to be false, as when salt is evaporated the vapor is fresh, the deposit of salt remaining behind. With regard to injurious effect upon the horses' feet, he claimed to be unable to judge.

Dr. Harvey L. Byrd said that salt was an antiseptic, and was daily used in that capacity wherever animal matter was to be kept in good condition. This is the special character of an antiseptic, that it destroys organisms of a low form of life. Any salt that might exist in the atmosphere would have rather a beneficial effect than otherwise. We go to the sea-shore to inhale salt air and recruit. The effect on the horses' feet was merely a softening of the hoof, and not a disease, either local or general.

Dr. G. Halsted Boyland thought that the effect, whether beneficial on theoretical grounds or injurious to pedestrians, was very slight. If salt is mixed with snow in a room twenty-eight degrees above zero it forms a compound the temperature of which sinks in the course of eight minutes to four degrees below zero, where it remains stationary for about eight or ten minutes, and then rises immediately but slowly, until at the end of thirty minutes we have a mean temperature of twenty degrees above zero, quite bearable to man and beast. The very coldest point indicated by this repeated and well-known experiment is still above the degree of cold observed in many large cities in moderately cold weather.

The "yellow-fever" or "typho-malarial" district, comprising a line on the shore of the bay in the portion of the city towards Canton, where the diseases in question prevailed to some extent last summer, is, we understand, the subject of a report from some of the medical societies to the mayor, and action is to be taken to prevent a recurrence of the outbreak which was so thoroughly and efficiently stamped out last year. Some say it was "yellow jack," others not.

February 19, 1877.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MARCH 3, 1877.

	Estimated Population, July 1, 1877.	Total Mortality for the Week.	Annual Death-Rate per 1000 for the Week.	Death-Rate for the Year 1876.
New York	1,077,228			27.46
Philadelphia	850,856	311	19.01	22.88
Brooklyn .	527,830	238	23.45	24.31
Chicago . .	420,000	149	18.45	20.41
Boston . .	363,940	165	23.58	23.39
Providence	103,000	40	20.19	18.34
Worcester .	52,977	20	19.63	22.00
Lowell . .	53,678	17	16.47	22.21
Cambridge	51,572	7	7.05	20.54
Fall River	50,370	14	14.45	22.04
Lawrence .	37,626	19	26.26	23.32
Lynn . .	33,524	13	20.16	21.37
Springfield.	32,976	3	4.73	19.69
Salem . .	26,739	16	31.12	23.57

Normal Death-Rate 17 per 1000.

SUMMARY FOR FEBRUARY.—The general death-rates in the cities named above indicated a satisfactory state of the public health during February. The absence of epidemic disease and the favorable weather will account for this condition in great measure.

In New York, phthisis, pneumonia, and bronchitis were the chief causes of death. The principal zymotic diseases (scarlatina, diphtheria, croup) were less fatal than in January.

In Philadelphia, small-pox, which was quite fatal in January, has diminished. Of the other zymotic diseases, scarlatina, diphtheria, and croup were the most prevalent. The general death-rate was under 18 per 1000.

In Brooklyn, there was a marked decline in the zymotic death-rate. Scarlatina, however, has shown a slight increase in fatality. Pneumonia was, next to phthisis, the cause of the greatest number of deaths.

Chicago continues to report an excessive mortality from scarlatina.

In Boston, the month was marked by a decided decline in the fatality of scarlatina, the deaths decreasing from 25 in January to 9 in February. Other diseases have not varied materially from the record of last month. Death rate for February, '76.

Providence was remarkably exempt from fatal diseases in February; its general death-rate was 13.6, against 17.8 in January. Diphtheria stands next to phthisis among the greatest causes of mortality, but the fatality from diphtheria was less than in January.

In the eight Massachusetts cities besides Boston, phthisis, as usual, headed the list of the causes of death; next was diphtheria, but much below the record of January; pneumonia showed a slight increase; scarlatina has declined.

F. W. D.

BOOKS AND PAMPHLETS RECEIVED.—A Course of Practical Histology. By Edward A. Schäfer. Philadelphia: Henry C. Lea. 1877. (From the publisher.)

Report of the Fifth Ophthalmological Congress, held in New York, September, 1876. Published by a Committee composed of Hermann Knapp, Henry D. Noyes, Charles S. Bull, and Richard H. Derby. New York: D. Appleton & Co. 1877. Pp. 265.

Milk Sickness. A Paper read before the Inter-State Medical Convention held in the City of Toledo on the 28th, 29th, and 30th of November, 1876. By W. H. Philips, M. D., of Kenton, Harding County, Ohio. (Reprinted from Cincinnati Lancet and Observer.)

Pneumatic Pressure and the Genu-Pectoral Posture in the Reductions of Uterine Luxations. By A. Sibley Campbell, M. D., Augusta, Georgia. New York: William Wood & Co. 1877. (Reprinted from the American Journal of Obstetrics and Diseases of Women.)

We would remind "Medicus" that we do not read anonymous communications. We must therefore request his name.